

**Notice of Allowability****Application No.**

10/814,691

**Applicant(s)**

O'CONNOR, DENNIS M.

**Examiner**

Oscar A. Louie

**Art Unit**

2136

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/21/2007.
2. ☒ The allowed claim(s) is/are 3, 4, 6, 8, 9, 24, 27, and 29-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

This Examiner's Amendment and Reasons for Allowance action is in response to the filing of 12/21/2007.

### ***Examiner's Amendment***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with the applicant's representative, Dana LeMoine, on 01/17/2008.

The application has been amended as follows:

Claim 3:

Lines 9-10, the phrase "capable of walking" has been amended as "...configured to walk..."

Claim 24:

Line 13, the phrase "hardware" has been amended in as "...page table walk hardware configured to..."

*Allowance*

2. Claims 1, 2, 5, 7, 10-23, 25, 26, & 28 have been cancelled.
3. Claims 3, 4, 6, 8, 9, 24, 27, & 29-36 have been amended with written remarks which overcome the examiner's prior rejections and objections, see paper of 10/17/07. Examiner withdraws all outstanding rejections and objections to Claims 3, 4, 6, 8, 9, 24, 27, & 29-36.
4. Claims 3, 4, 6, 8, 9, 24, 27, & 29-36 are allowed.

*Examiner's Statement of Reasons for Allowance*

5. Prior art was found which disclosed a hardware Secure Processing Unit [e.g. Sibert (US-7124170-B1)], privilege level checking in a secure hierarchical computer system [e.g. Mahon et al. (US-4809160-A)], and a tablet personal computer [e.g. Mel et al. ("Tablet: Personal Computer of the Year 2000")].

6. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or render obvious the limitations as recited in independent Claim 3, 4, 24, 27, & 34, specific to the, "the security enforcement mechanism includes page table walk hardware capable of walking page tables in secure memory in response to architecture events other than TLB misses caused by non-secure processes," of Claim 3; "the security enforcement mechanism includes circuits to differentiate between program generated memory accesses and architecture generated memory accesses, and to block program generated memory access from accessing secure memory," of Claim 4; "wherein the security enforcement mechanism includes page table walk configured to walk page tables in secure memory in response architecture events other than TLB misses caused by non-secure processes," of Claim

24; “wherein the security enforcement mechanism is configured to allow access to page tables in secure memory when a translation look-aside buffer (TLB) miss occurs in the privileged nonsecure mode” and “wherein the access to the page table occurs without the processor leaving the privileged non-secure mode,” of Claim 27; and “wherein the security enforcement mechanism includes circuits to differentiate between program generated memory accesses and architecture generated memory accesses, and to block program generated memory access from accessing secure memory when the processor is in the privileged non-secure mode or the user non-secure mode,” of Claim 34.

Therefore, the Examiner considers the above limitations as the non-obvious novelties of the invention.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance”.

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*Conclusion*

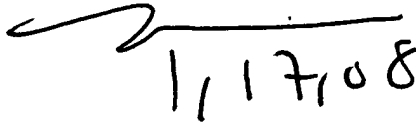
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Oscar Louie whose telephone number is 571-270-1684. The examiner can normally be reached Monday through Thursday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami, can be reached at 571-272-4195. The fax phone number for Formal or Official faxes to Technology Center 2100 is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OAL  
01/17/2007

Nasser Moazzami  
Supervisory Patent Examiner



1,17,08